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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,211	08/27/2003	Michael Kelly	860-011447-US (PAR)/20020	6141
22878 7590 11/15/2007 AGILENT TECHNOLOGIES INC. INTELLECTUAL PROPERTY ADMINISTRATION, LEGAL DEPT. MS BLDG. E P.O. BOX 7599 LOVELAND, CO 80537			EXAMINER NGUYEN, TU T	
			ART UNIT 2886	PAPER NUMBER
			NOTIFICATION DATE 11/15/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

IPOPS.LEGAL@agilent.com

TH

Office Action Summary

Application No.

10/649,211

Applicant(s)

KELLY ET AL.

Examiner

Tu T. Nguyen

Art Unit

2886

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 16-19 is/are rejected.
- 7) ☒ Claim(s) 5-15 and 20-26 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 08/27/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

The disclosure is objected to because it contains an embedded hyperlink (page 1, line 20) and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 16 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Specifically, claim 16 claims a software program stored on a "data carrier". It is noted that "signals" can also be "data carriers", and processing system for the signal data carriers could be signal "demodulators". Because signals are physical phenomena they are not patentable according to MPEP 2105: "the laws of nature, physical phenomena and abstract ideas are not patentable subject matter". Moreover, claim 16 broadly encompasses all data carriers that the applicant fails to identify to be usable for storing the method. MPEP 2106 requires that for products, the claim limitations will define discrete physical structures or materials. Claim 16 fails to specifically disclose the specific physical structure intended for storing the method by the inventor at the time the invention was made.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4,16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heffner (5,298,972) in view of Niki et al (5,633,959).

With respect to claims 1,17, Heffner discloses a method for determining mode spectra of an optical property (column 1, lines 15-20) of a device under test (DUT hereinafter) 30 (fig 1) in dependence on a spectral parameter (column 4, lines 29-31), with said mode spectra corresponding to the device's principal states of polarization (PSPs hereinafter) (abstract), the method comprising the following steps: determining minimum and maximum coefficient of said optical property, or other measured values from which said coefficient can be determined with respect to possible state of polarization of light that is incident upon said DUT (column 8, lines 50-60), whereby said minimum and said maximum coefficients are determined for a spectral range of interest of said spectral parameter (column 4, lines 29-31); deriving the mode spectra of said optical property for at least one of the PSPs as a function of said spectral parameter for said spectral range of interest, whereby a partial correspondence of said mode spectra with said minimum and maximum coefficient is used for deriving said mode spectra (column 35-42).

Heffner does not explicitly disclose determining minimum envelope values and maximum envelope values of said optical property. Niki discloses a method for measuring polarization degree. The method comprises: determining minimum envelope values and maximum envelope values of said optical property (column 15, lines 40-60). it would have been obvious to modify Heffner by determining the minimum envelope values and maximum envelope values of said optical property taught by Niki to facilitate the measuring.

With respect to claim 2, Heffner discloses the spectral parameter being a wavelength of light (column 4, lines 30-31).

With respect to claims 3-4, Heffner discloses the claimed invention except for determining the wavelength shift of the DUT or using a planar lightwave circuit for the DUT. However, it would have been obvious to modify Heffner to determine the wavelength shift of the DUT or using a planar light wave for the DUT to measure different characteristics of the DUT or using the system in different environments.

With respect to claim 16, Heffner does not disclose the software as claimed. However, it would have been obvious to modify Heffner with the software to control the measuring method by a computer to facilitate the measuring.

With respect to claim 18, Heffner discloses the claimed matrix (column 8, lines 55-60).

With respect to claim 19, Heffner discloses wherein said minimum/maximum unit determines said minimum envelope values and said maximum envelope values of said optical property by varying the polarization of the incident light over various different states of polarization (abstract, line 2, "light produces three different states of polarization).

Allowable Subject Matter

Claims 5-15,20-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As per claims 5,20, the prior arts of record, taken alone or in combination, fail to disclose or render obvious the steps of analyzing the difference between the maximum envelope and the minimum envelope is smaller than a predefined threshold, in order to identify crossing points where said mode spectra cross each other, which structurally arranged and functionally operated as claimed in claims 5 or 20 in combination with all the steps of the base claim.

As per claims 12,24, the prior arts of record, taken alone or in combination, fail to disclose or render obvious the steps of determining at least part of a transfer matrix of

the DUT, such as the Mueller matrix of the DUT, as a function of said spectral parameter; determining, at one or more points of reference, polarization parameters for at least one of said PSPs; deriving the mode spectra of said optical property in dependence on said spectral parameter from the polarization parameters at said one or more points of reference and the matrix elements of the transfer matrix, whereby said polarization parameters are assumed to be constant over spectral ranges around said points of reference, and whereby the spectral variation of said mode spectra is generated by the dependence of said matrix elements on said spectral parameter, which structurally arranged and functionally operated as claimed in claims 12 or 24 in combination with all the steps of the base claim.

As per claim 27, the prior arts of record, taken alone or in combination, fail to disclose or render obvious determining at least part of a transfer matrix of the DUT, such as the Mueller matrix of the DUT, as a function of said spectral parameter, determining, at one or more points of reference, polarization parameters for at least one of said PSPs, and setting the polarization state of the light from a polarization controller to the DUT according to said polarization parameters and at least part of said transfer matrix, and measures the optical property for at least one of said PSPs over a range of the spectral parameter around the respective point of reference, which structurally arranged and functionally operated as claimed in claim 27 in combination with all the limitations of the base claim.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu T. Nguyen whose telephone number is (571) 272-2424. The examiner can normally be reached on T-F 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur Chowdhury can be reached on (571) 272-2800 Ext. 86. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Tu T. Nguyen
Primary Examiner
Art Unit 2886

11/10/2007